CLAIMS:

1. A process for the stabilization and disinfection of sludge wherein

   a) raw sludge having a dry matter content of from 3 to 7 % by weight is fed continuously or quasi-continuously into a first stage, where it remains for an average retention time of three to ten days under aerobic-thermophilic conditions to obtain a partially stabilized sludge;

   b) said partially stabilized sludge is fed into a second stage in which disinfection of the partially stabilized sludge is effected at temperatures of at least 50 °C, wherein prior to discharging, there is no charging until said partially stabilized sludge has been disinfected.

2. The process according to claim 1, wherein said partially stabilized sludge from the first stage is continuously or quasi-continuously fed into an intermediate storage tank, from which it is fed batchwise to the second stage.

3. The process according to any of claims 1 to 2, wherein the average retention time in the second stage is at least two days.

4. The process according to any of claims 1 to 3, wherein the sludge is agitated in the first and/or second stages.

5. The process according to any of claims 1 to 4, wherein the time between two chargings of the first stage is not longer than 12 hours.

6. The process according to any of claims 1 to 5, wherein the time between two chargings of the first stage is not longer than 6 hours.

7. The process according to any of claims 1 to 5, wherein no charging is effected for at least four hours.

8. The process according to at least one of claims 1 to 7, wherein the amount of oxygen supplied in the first or second stage is controlled depending on parameters selected from the group of:

- charged amount of raw sludge;
- redox potential in the sludge;
- oxygen content in the sludge;
- oxygen content in the exhaust gas; and
- CO_2 content in the exhaust gas.

9. The process according to any of claims 1 to 8, wherein the temperature in the second stage is within a range of from 50 to 65 °C and is controlled by supplying or withdrawing heat.

10. The process according to any of claims 1 to 9, wherein the aerobically stabilized and disinfected sludge is subsequently further treated physically, chemically and/or biologically.

11. The process according to any of claims 1 to 10, wherein exhaust gas released in the process is recovered and treated physically, chemically and/or biologically.

12. A device for the aerobic-thermophilic stabilization and disinfection of sludge, especially for performing the process according to any of claims 1 to 11, comprising:

- a raw sludge tank (1) for the continuous or quasi-continuous charging of raw sludge, which is a first stage;

- a disinfection tank (2) for disinfecting the partially stabilized sewage sludge, which is a second stage; and

- a conveying means (15) provided between the raw sludge tank (1) and the disinfection tank (2) for the batchwise conveying of sludge into the disinfection tank (2).

13. The device according to claim 12, further comprising an intermediate tank (Z) provided between the raw sludge tank (1) and the disinfection tank (2) and connected with both tanks (1, 2), a first conveying means (16) for the continuous or quasi-continuous conveying of partially stabilized sludge from the raw sludge tank (1) into the intermediate tank (Z), and a second conveying means (17) for conveying sludge from the intermediate tank (Z) into the disinfection tank (2).

14. The device according to claim 12, comprising at least two disinfection tanks (2,2') connected with the raw sludge tank (1), wherein one closing means (19, 20) is provided for each disinfection tank (2,2'), so that at least one of the disinfection tanks (2,2') can be closed while at least one other disinfection tank (2,2') is open for being continuously or quasi-continuously filled.

15. The device according to any of claims 12 to 14, wherein said raw sludge tank (1), disinfection tank (2,2') and/or intermediate tank (Z) have an agitation device (11) and/or an aeration device (12) and/or an exhaust device (13) and/or a heat exchanger (10).